

## Catalog of r

★★★★

- AIR
- EARTH
- WATER

- Submarine
- Ships of the line
- Small combatants
- Landing craft
- Hovercraft
- Special Forces
- Ekranoplane
- Navy Surface Missiles
- Surface-to-air the Navy
- Anti-submarine
- Anti-aircraft Navy
- Naval Artillery
- Torpedoes
- Mines and Minesweepers
- Radars and Sonar

- SPACE
- Personalitie
- News and u

- KBKhM (A.M. Isaev) - propulsion system;
- OKB-626 (N. Semikhatov) - missile guidance system;
- TsKB-34 (KBSM, E.G. Rudyak) - launcher;
- NII-1011 (VNIITF, K.I. Shchelkin) / SKB-385 - warhead;
- NII-1011 (VNIITF, K.I. Shchelkin) - nuclear munition and charge.

In late 1956, SKB-385 prepared the design documentation for the missile project. Testing of the missile engines began in December 1958.

Flight tests of the R-13 missile with the "article 55" warhead were divided into 4 stages. The first two stages were conducted at the Kapustin Yar test site (May-November 1959 and November 1959 - February 1960). A total of 19 launches were performed from the fixed and swinging stands, 15 of which were considered successful. The first flight test of the complete warhead with the "article 55" nuclear munition was performed on September 5, 1959, at the Makat airfield at a range of 540 km. The last launch with the article was performed in February 1960. A total of 6 missile launches were performed with the YABP.



## Latest com

mpashnev 2020-

written by Sierra

[arma37@tank72.com](mailto:arma37@tank72.com)

VA-111 Shkva



The monument with the R-13/4K-50 missile in Severomorsk was erected in honor of the 25th anniversary of the city of Severomorsk (<https://ru.wikipedia.org/>)

Author: [DIMMI](#)

Created: 06.10.2011 17:53:56

Comments: [3](#)

[READ THE FULL ARTICLE »](#)

R-11FM / 8A61FM - SS-N-1 SCUD-A

**DATA AS OF 2025 (standard replenishment)**  
**D-1 complex, R-11FM / 8A61FM missile - SS-N-1 SCUD-A**  
★★★

Submarine-launched ballistic missile (SLBM). The development of the complex with a ballistic missile launched from a submarine was carried out under the Volna research project by OKB-1 NII-88 under the general supervision of S.P. Korolev, lead designer - I.V. Popkov. Probably, the results of experiments by the USSR Navy group of Rear Admiral N.A. Sulimovsky, which in 1952 conducted experiments with launching missile models from dry and flooded silos, were taken into account when working on the Volna research project. The tactical and technical assignment for the creation of the "submarine carrier - ballistic missile" complex was approved by the efforts of the chief designers of OKB-1 S.P. Korolev (missile) and TsKB-16 N.N. Isanin (submarine) on July 14, 1953 ( *history - Gudilin* ). The circle of developers was determined:

- OKB-1 (Chief Designer S.P. Korolev, the missile and the complex as a whole)
- TsKB-16 (Chief Designer N.N. Isanin, the carrier boat)
- NII-885 (Chief Designer N.A. Pilyugin, missile control devices)
- OKB-2 NII-88 (Chief Designer A.M. Isaev, missile engine)
- TsKB-34 (Chief Designer E.G. Rudyak, development of the ground test bed and launcher)
- NII-49 (Director - N.A. Charin, control systems)
- MNI-1 (Director - E.I. Eller, control systems)
- Plant No. 402 (Director - E.P. Egorov, PO Sevmash, construction of submarines).

A meeting of chief designers to coordinate work on the topic was held on January 5, 1954 ( *history - Gudilin* ).

Resolution of the USSR Council of Ministers No. 136-75 ""On the implementation of design and experimental work on arming submarines with long-range ballistic missiles and the development of a technical design for a large submarine on the basis of this work" was issued on January 26, 1954. The development of an experimental SSBN based on the submarine of Project [611 ZULU](#) was started by TsKB-16 (later renamed PMBM "Malakhit"), the chief designer N.N. Isanin was appointed by the same Resolution. By Resolution of the USSR Council of Ministers No. 1601-892 of August 25, 1955, the "Volna" research and development work was started to create a complex and a missile. In 1955, in addition to the experimental boat, it was planned to create a standard carrier boat with 6 missiles on board.

The project of the submarine V-611 ("Volna"-611) was approved in September 1954. The unfinished submarine of [project 611 ZULU](#) B-67 was transferred via the White Sea-Baltic Canal from Leningrad from plant No. 196 "Sudomech" (where she was laid down on 26.03.1953 and launched on 05.09.1953) to Molotovsk (now Severodvinsk), where in 1954 at plant No. 402 she was completed according to project V-611 (the first submarine of [project 611 ZULU](#) built at plant No. 402). The boat was handed over for trials on September 11, 1955.

The name D-1 was not used in documentation from the 1950s. The D-1 complex was removed from service in 1967.

An article for ev  
[Sierra](#) 2016-10-0

[VA-111 Shkva](#)  
[Slaanesh](#) Wrote  
not need it, but  
<http://www.ca-n>  
[Artist](#) 2014-09-13

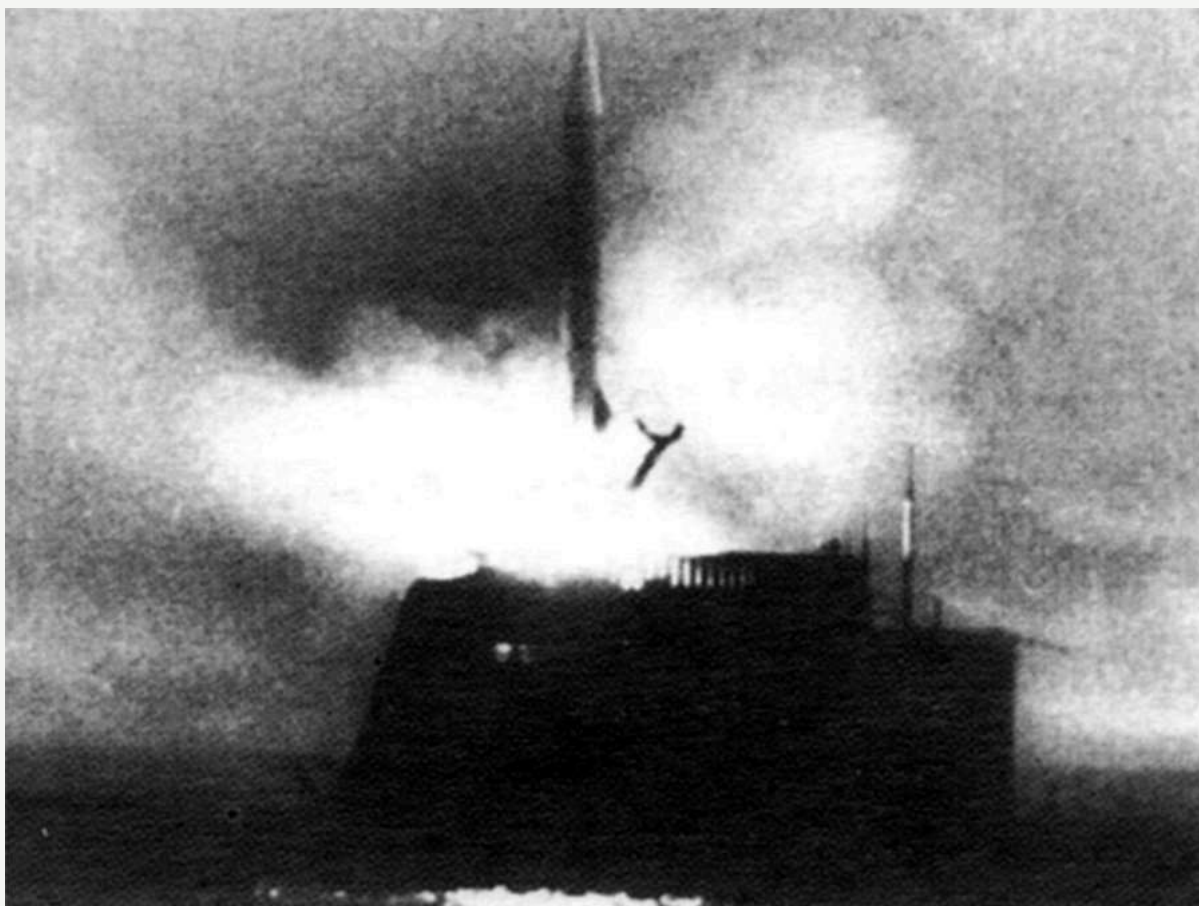
[VA-111 Shkva](#)  
I accidentally se  
Wikipedia abou  
Kyrgyzstan. Thi  
[Artist](#) 2014-09-13

[VA-111 Shkva](#)  
Vladimir Vladim  
Removed from  
1990s (((This is  
[Artist](#) 2014-09-11

[VA-111 Shkva](#)  
although we me  
India is interest  
[news.org/news/](https://news.org/news/)  
[Slaanesh](#) 2011-0

[VA-111 Shkva](#)  
Hmm, interestir  
targets are writt  
interesting, whe  
[Slaanesh](#) 2011-0

[VA-111 Shkva](#)  
A small remark  
example of the  
magnificent dev  
ideas. :beer:  
[Sierra](#) 2011-05-3



The world's first launch of the R-11FM SLBM from the B-67 submarine-launched ballistic missile base of Project V-611 ZULU-IV, White Sea, September 16, 1955 (<http://www.energia.ru/>).

Author: [DIMMI](#)

Created: 28.01.2012 23:38:26

Comments: [1](#)

[READ THE FULL ARTICLE >](#)

## T-5 / T-V

**DATA AS OF 2025 (standard replenishment)**

**T-5 / T-V / product 233**



The first straight-running torpedo with a nuclear warhead. The development of the torpedo with a nuclear warhead T-5 was carried out by TsNII Gidropribor, General Designer - A.M. Borushko starting in October 1953. The Chief Designer (according to TsNII Gidropribor and Kolyadin) was V.A. Kalitayev and, later, G.I. Portnov.

The RDS-9 nuclear charge was developed starting in 1953 in KB-11 of the USSR Ministry of Medium Machine Building (now - VNIIEF) under the general supervision of Yu.B. Khariton. The warhead and automatics were developed by Moscow branch No. 1 of KB-11 (later KB-25, now VNIIA), chief designer N.L. Dukhov. Theoretical development of the charge was conducted by E.I. Zababakhin. M.N. Nechayev, the developer of the charge was B.D. Bondarenko. Design development was conducted by department No. 43 of V.F. Grechishnikov, later by departments of D.A. Fishman and L.A. Yesin. Gas-dynamic development was conducted under the supervision of V.K. Bobolev. Before testing, the charge and warhead underwent a cycle of gas-dynamic tests. In 1955, the development was transferred to the newly formed KB-25 (now VNIIA) under the supervision of N.L. Dukhov.

In December 1954, the 6th Directorate of the USSR Navy, based on the fact that the T-5 torpedo would be used by submarines of Project 613, 611 and SSNs of Project 627, determined the need for 80 units of ammunition. On July 18, 1956, the Commander-in-Chief of the Navy signed an order to create nuclear weapons bases in the fleets. The

first test of the RDS-9 charge was conducted at the Semipalatinsk test site on October 19, 1954 (see [Chronicle of Nuclear Tests](#)) - the test did not take place - the explosion of the initiating explosive did not cause a fission reaction of nuclear materials (for the first time in the history of domestic nuclear tests). The first successful explosion of the RDS-9 charge was performed there on July 29, 1955.

According to the Resolution of the Council of Ministers of the USSR dated April 13, 1955, a test of the nuclear combat charge compartment (BZO) of the T-5 torpedo was conducted at the Novaya Zemlya test site on September 21, 1955 (depth 12 m, BZO was lowered from the minesweeper of Project 253L).

During 1955-1956, sea trials of the T-5 torpedoes were conducted. The first part of the tests, including the check of the automation, took place on Lake Issyk-Kul. The second part of the tests took place on Lake Ladoga. During the sea trials on Lake Ladoga in inert equipment, in 4 shots out of 15, when passing about half the distance, the torpedo made a "bag", the hydrostatic switch was triggered prematurely, which is equivalent to issuing a command to detonate. It was also a problem to ensure the temperature regime of the special warhead - from +5 to +25 degrees C. in unheated torpedo tubes.





Torpedo T-5/53-58 in the VNIIEF museum in Sarov - former Arzamas-16 ( <http://www.atrinaflot.narod.ru> ).

Author: [DIMMI](#)

Created: 21.02.2011 00:09:41

Comments: [2](#)

[READ THE FULL ARTICLE >](#)

## pr.1134 Berkut - KRESTA-I

DATA FOR 2025 (standard update)

pr.1134 "Berkut" - KRESTA-I

"Admiral Zozulya"

"Vladivostok"

"Vice-Admiral Drozd"

"Sevastopol"

★★★



Missile cruiser / large anti-submarine ship. The development of the project of the ship 1134 was carried out by TsKB-53 under the leadership of the chief designer V.F. Anikeyev on the basis of the Resolution of the Council of Ministers of the USSR No. 1180-51 of December 30, 1961. Yu.A. Babich, M.S. Natus and V.D. Rubtsov were appointed deputy chief designers. Work was started immediately on the technical design of the ship, bypassing the stage of the draft design. The hull of the missile cruiser of Project 58 was taken as a basis. During the design it became clear that it would not be possible to fit into the dimensions of the hull of Project 58 - especially in connection with the requirement of the tactical and technical assignment to increase the cruising range to 5000 nautical miles. As a result, a large-scale increase in the dimensions of the Berkut hull was carried out while maintaining the theoretical drawing and contours of Project 58. The main dimensions of the ship were also chosen taking into account the dimensions of the closed slipway of the Leningrad Shipyard No. 190 named after A.A. Zhdanov, where it was planned to build the ships of the project.

The technical design was developed from December 1961 to mid-1962. The cruisers of the project were supposed to be equipped with the promising universal anti-aircraft missile system M-11 "Shtorm" developed by the Altair Research Institute (USSR Ministry of Shipbuilding Industry), the Fakel Design Bureau (USSR Ministry of Aviation Industry) and the Bolshevik Plant Design Bureau (USSR Ministry of Defense Industry). The SAM was supposed to be ready by 1965. The technical design was approved in January 1963 with a changed armament composition: in the anti-submarine armament, the Titan sonar was replaced by the more advanced Titan-2 sonar, but due to a delay in its readiness, the Titan sonar was installed on the ships. Due to the unreadiness of the M-11 "Shtorm" SAM (adopted into service only in 1969), the ship is equipped with the serial Volna SAM. The replacement of the SAM system did not increase the effectiveness of the ship's air defense, although the ammunition load of the V-600 SAMs was increased to 64 (16 on Project 58 and 32 on Project 61). The anti-ship weapons system consists of two twin non-guided KT-35 launchers with four 4K-44 missiles without a spare ammunition load. A comparison of the anti-submarine weapons with similar weapons on the Project 61 large anti-submarine ship shows that with an equal composition of hydroacoustic equipment and bomb-throwing installations, Project 1134 has more powerful torpedo weapons (two five-tube torpedo tubes instead of one). In terms of anti-submarine capabilities, Project 1134 was not much stronger than its predecessor, but it had twice as strong air defense and an anti-ship strike complex, and in addition, for the first time in Soviet military shipbuilding, it received a permanently based ship helicopter along with full-fledged aviation and technical support facilities.

When laid down, the ships of the project were classified as air defense/antisubmarine warfare ships. In 1966, they were reclassified as "large antisubmarine ships". On August 3, 1977, they were reclassified as "missile cruisers". In the West, they have always been considered missile cruisers.



Large anti-submarine ship "Admiral Zozulya" project 1134, photo 1968-1971 (from the MilitaryRussia.Ru archive)

Author: [DIMMI](#)

Created: 22.02.2025 21:04:30

Comments: [1](#)

[READ THE FULL ARTICLE >](#)

## D-7 / RT-15M / 4K-22

**DATA AS OF 2025 (standard replenishment)**

**D-7 complex, RT-15M / 4K-22 missile**

★★★

Solid-fuel ballistic missile for submarines (SLBM) developed by TsKB-7 (now KB Arsenal). Development of a missile with a range of 2,400 km was mandated by Resolution of the USSR Council of Ministers No. 316-137 of June 4, 1961. The missile was a combination of the 2nd and 3rd stages of the land-based RT-2 ICBM developed by OKB-1 under the general supervision of S.P. Korolev. The complex was developed by SKB-385 (now the Makeyev State Rocket Center, Miass), lead designer - M.L. Miloslavsky. Later, development of the missile was also transferred to SKB-385. The missile was developed with the aim of possible deployment on Project 667A nuclear submarines in the future.

Three stages of testing of the RT-15M SLBM were planned:

1. Drop tests of the missile mockup using the PSD-7 submersible test rig;
2. Flight tests of the missile using the S-229 Project 613D7 experimental SSBN;
3. Flight design tests using the K-142 Project 629B SSBN.

All three stages of testing were planned to be completed by the end of 1963.

The submersible test rig and the S-229 Project 613D7 experimental SSBN were prepared at Shipyard No. 444 in Nikolaev for testing in 1963. In May 1963, one year behind schedule, launches of K1.9 mockups began from the PSD-7 submersible test rig. The tests from the rig were completed in the summer of 1963 and were considered successful. The throw-out launches from the experimental S-229 SSBN were delayed due to the unreadiness of the K1.10 mock-up missiles, and later - due to unsuccessful launches of the RT-2 ICBM test program.

In July 1963, by the Resolution of the USSR Council of Ministers, work on the RT-15M missile was suspended until positive results were obtained from the RT-2 ICBM tests.

On March 24, 1964, a decision was made to terminate the development of the RT-15M SLBM. The experimental S-229 Project 613D7 SSBN and the PSD-7 rig were returned to the Shipyard in Nikolaev for modernization for the D-5 complex, which was later accepted into service on the Project 667A SSBN. Work on the RT-15M was completely terminated by the Resolution of the USSR Council of Ministers in 1970.





Models of RT-15M missiles at the Parade on Red Square in Moscow, probably May 1, 1965 (photo - RIA Novosti)

Author: [DIMMI](#)

Created: 06.10.2011 18:08:00

Comments: [1](#)

[READ THE FULL ARTICLE >](#)

## P-1000 Vulcan - SS-N-12 mod.2 SANDBOX

**DATA AS OF 2024 (standard replenishment)**

**P-1000 "Vulcan" complex, 3M70 missile - SS-N-12 mod.2 SANDBOX**

★★★★

Anti-ship cruise missile. Development of the complex was started by NPO Mashinostroyeniya (formerly OKB-52) of V.N. Chelomey (since 1984, General Designer - G.A. Efremov) in accordance with the Resolution of the USSR Council of Ministers of May 17, 1979. The missile is a further development of the P-500 complex missile, retaining the launch equipment and significantly increasing the range due to the use of a new starting engine, increasing the volume of fuel in the cruise stage, reducing the armor mass and other improvements.

The first test launch from the SM-49 ground test stand in Nenoksa - December 3, 1982 (10 hours 55 minutes) - the launch was unsuccessful - the launch block did not separate from the missile, the missile broke apart and fell after 8 seconds of flight. The second launch - April 9, 1983 - a similar result at 9 seconds of flight. As a result of the analysis of unsuccessful tests it was established that the failures occurred due to the fault of the missile control system. The third launch was successful (probably June 1983). Tests with the SSGN Project 675MKV began on December 22, 1983. Joint tests of the P-1000 complex and the SSGN Project 675MKV - 1985. The first launch within the framework of joint tests was a 2-missile salvo (both missiles hit the target despite the failure of the pressure maintenance system in the instrument compartment and an operator error). The second launch within the framework of joint tests was on November 8, 1985 - a three-missile salvo, one missile had a failure of the radar sighting device (RLS), the other two missiles hit their targets. As a result of flight design and joint tests, 18 missile launches were made, of which 11 launches were considered successful. Tests of the control system and control and verification equipment were completed in 1985. In December 1985, the Act on Completion of Joint Tests was signed with a recommendation for the P-1000 Vulcan complex to be accepted into service with control tests to be conducted in 1986. Eight missiles were allocated for the control tests and it was planned to conduct a four-missile salvo and four single launches of missiles with different programs. One of the single launches (April 24, 1986) took place with the starting engine of the P-500 complex missile according to the program of the P-500 complex missile control system. The launch was successful. Two successful launches to test the missiles' noise immunity took place on June 18 and 19, 1986. A four-missile salvo took place on July 4, 1986 (three missiles were equipped with telemetry equipment due to the fact that the equipment at the test site could not receive information from four missiles). The missile, not equipped with a telemetry system, lost control on approach to the target; the cause was not established.

In 1986, the creators of the complex were awarded the USSR Lenin Prize ( [source](#) ). The Vulcan complex was accepted into service on December 18, 1987. Serial production of the Vulcan missiles was carried out by the Strela Production Association in Orenburg. The missile was produced from 1985 to 1992.



3M70 missile of the P-1000 "Vulcan" complex ( <http://www.cruiser-moskva.info> ).

Author: [DIMMI](#)

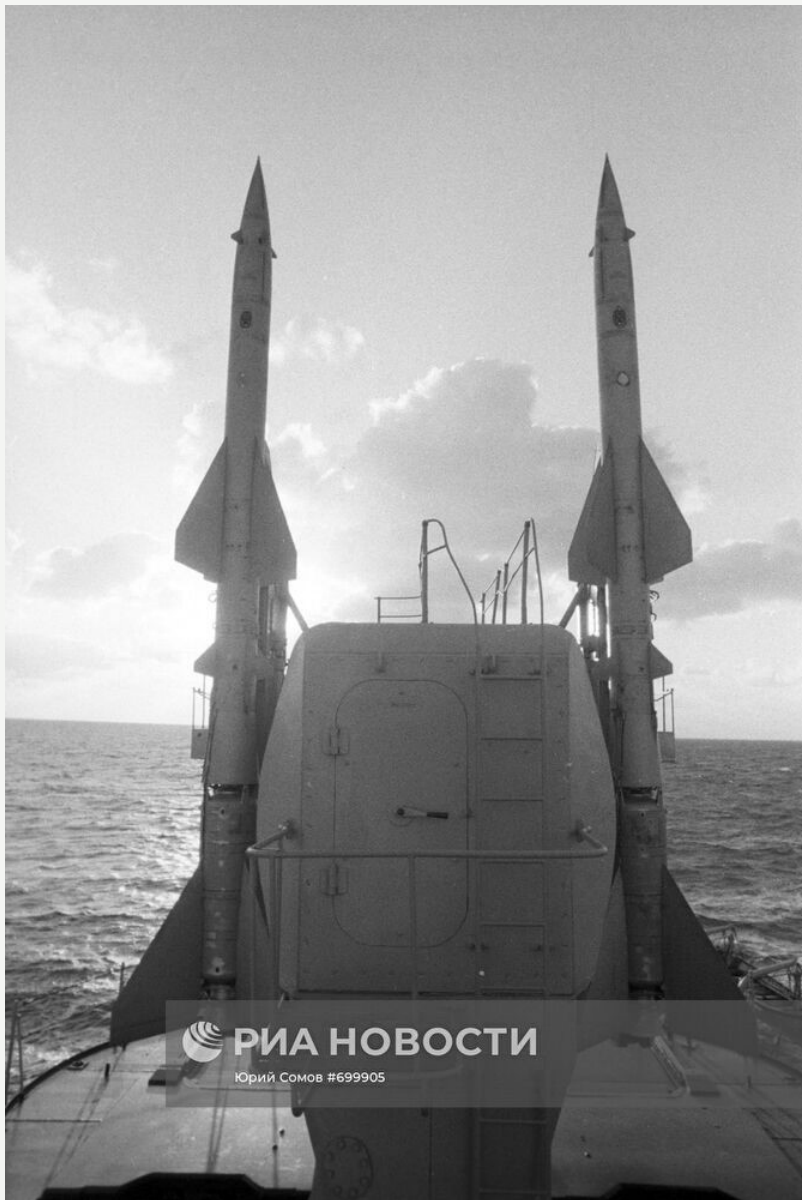
Created: 28.08.2010 06:06:38

Comments: [35](#)[READ THE FULL ARTICLE >](#)

## Complex M-2 "Volkhov-M" (SA-N-2 GUIDELINE)

**M-2 "Volkhov-M" complex, B-753 missile - SA-N-2 GUIDELINE**  
**M-2bis complex, B-755 missile**

Naval version of the land-based S-75 (SA-2) SAM system. The S-75 system was modified for the Navy by NII-1 together with NII-49. R&D work began in 1956 to arm Project 70 cruisers. Later, the SAM system was planned to be used on various cruiser projects (not implemented). The first (and only) SAM system was installed on the ship during the reconstruction of the cruiser "Dzerzhinsky pr.68bis to pr.70E at the Sevmorzhavod plant in Sevastopol from October 15, 1957 to December 24, 1958. Missile launches began in February 1958. The first missile launch was successful - an Il-28 unmanned target aircraft was shot down at an altitude of 10,000 m. The SAM system passed tests and was accepted into service on the cruiser pr.70E (December 24, 1958 or 1961 ??). By default, the data of the missiles are V-753.



 **РИА НОВОСТИ**  
Юрий Сомов #699905

SM-64 launcher with B-753 missiles on the cruiser Dzerzhinsky during a visit to the Syrian Arab Republic, 21.01.1972 (photo - Yuri Somov, RIA Novosti)

Author: [DIMMI](#)

Created: 17.01.2009 03:21:49

Comments: [1](#)[READ THE FULL ARTICLE >](#)

## D-9 / R-29 / 4K-75 - SS-N-8 SAWFLY

**DATA AS OF 2023 (standard replenishment)**  
**D-9 complex, R-29 / 4K-75 / RSM-40 missile - SS-N-8 SAWFLY**  
**D-9D complex, R-29D / 4K-75D missile**  
**D-9DU complex, R -29DU / 4K-75DU missile**  
★★★★

Submarine-launched ballistic missile (SLBM) with intercontinental range. Developed by SKB-385 / V.P. Makeyev State Research Center (Miass). Using the experience of creating the R-27 SLBM of the D-5 complex, preliminary development of the sea-based intercontinental missile project was carried out in early 1963 under the supervision of V.R. Serov, Deputy General Designer of SKB-385. The design of the sea-based ICBM was carried out under a competition with the V. N. Chelomey Design Bureau, which proposed a sea-based version of the UR-100 land-based universal ICBM.

On July 3, 1963, by Resolution No. 133 of the Military-Industrial Complex under the USSR Council of Ministers, the development of a pre-draft design for the D-9 complex was assigned to SKB-385 (lead designer - Yu. A. Korobeynikov). As a result of consideration by the USSR Defense Council of alternative proposals for the D-9 (developed by SKB-385) and D-8 (developed by OKB-52 / TsKBM) sea-based complexes, preference was given to the D-9 complex with the R-29 SLBM, which began to be developed. R&D work on the development of the D-9 submarine missile armament complex was initiated by Resolution No. 808-33 of the USSR Council of Ministers dated September 22, 1964. The first versions of the R-29 missile design appeared as early as 1964.



The requirements for the development of the missile included ensuring an intercontinental firing range with an increase in the throw mass (in comparison with the R-27), increasing the accuracy of firing and the autonomy of combat use. To meet the requirements, the following innovations were implemented in the new complex:

- azimuth astrocorrection of the missile flight using the stars and the Sun, which increased the accuracy of firing (a control system with azimuth astrocorrection was used on a ballistic missile for the first time in the world);
- an autonomous digital computer system in the ship's missile weapon control system and an onboard digital computer complex of the missile, which, in combination with other systems, provided a reduction in the prelaunch preparation time and the launch of the entire complement of missiles in a single salvo;
- all-weather combat use and the launch of missiles from the underwater and surface positions of SSBNs to an intercontinental range were ensured, which made it possible to solve problems from their basing points;
- a launcher with rubber-metal shock absorbers placed on the walls of the submarine silo was created, which improves the operational qualities of the complex.

The following cooperation of enterprises was formed during the development of the complex and the missile:

- SKB-385 / KBM (Miass) - the lead company for the complex and the missile;
- OKB-2 / KBKhM (chief designer A.M. Isaev) - cruise liquid-propellant rocket engines of both stages;
- NII-592 / NIIA (Chief Designer N.A. Semikhatov) - missile control system, shipboard fire control system complex;
- NII KP - command devices;
- NII-885 / NPC AP (Chief Designer N.A. Pilyugin) - development of an onboard gyrostabilized platform with an astrovision device and azimuthal astrocorrection;
- TsKB (NPO) Geofizika - astrocorrection system;
- NII-1011 / VNIITF - development of a thermonuclear munition;
- KB-11 / VNIIEF - development of a thermonuclear charge;
- TsPB Volna (Chief Designer N.F. Shulzhenko) - conversion of a Project 658 submarine into the D-9 complex (Project 701) for testing SLBMs.



Submarine-launched ballistic missile (SLBM) R-29/4K-75 - SS-N-8 SAWFLY at the Fleet's technical base (<https://makeyev.ru/>)

Author: [DIMMI](#)

Created: 07.10.2011 15:17:07

Comments: [23](#)

[READ THE FULL ARTICLE >](#)

## pr.11437 - KREMLIN

DATA AS OF 2010 (standard replenishment)

**project 11437 - KREMLIN**  
"Ulyanovsk" (not completed)



Nuclear-powered heavy aircraft-carrying cruiser of Project 11437. The design was started by Nevskoye Design Bureau (Leningrad) on the basis of the aircraft carrier of Project [11435](#) using the developments in the research and development of the aircraft carrier of Project 1160 in 1984. Chief Designer - L.V.



Belov (later - V.M. Varfalomeev). The preliminary design was reviewed by the Scientific and Technical Council of the USSR Ministry of Shipbuilding Industry on 03.04.1986 and approved on 12.06.1986 with a decision to build order 107. The contract for order 107 was received by the plant on 11 June 1986, the contract was signed by the Navy on 30.12.1987. Construction of a series of 4 ships of Project 11437 was supposed to be carried out starting in 1988 on the slipway "O" of plant No. 444 in Nikolaev.

**On November 25, 1988**, the second ship of Project 11435 Riga was launched and the ship of Project 1143.7 Ulyanovsk was laid down. The launch of the ship was planned for 1992-1993. The ship was planned to be commissioned in December 1995. According to some sources, it was planned to build two ships and the components for the second hull were being prepared at the shipyard in Nikolaev (factory No. 108). In November 1991, the Russian Navy suspended payments to the Black Sea Shipyard (Nikolaev) necessary for the construction of the Varyag heavy aircraft carrier (65-75% complete according to various estimates) and the Ulyanovsk heavy aircraft carrier (18-20% complete according to various estimates, 29,000 tons of hull steel have been mastered). The unfinished Project 1143.7 Ulyanovsk ATAKR was scrapped by the plant starting from February 4, 1992 (Decision of the Council of Ministers of Ukraine No. 69-r, dismantling of the hull completed by the end of 1992).



Photomontage with a model of the aircraft carrier "Ulyanovsk" project 11437 (processed collage from <http://militaryphotos.net>, 2010).

Author: [DIMMI](#)

Created: 18.05.2010 17:55:42

Comments: [5](#)

[READ THE FULL ARTICLE >](#)

## T-15

**DATA FOR 2011 (in progress)**

T-15

★★★

Straight-running torpedo with a thermonuclear charge. Since 1949, the possibility of striking coastal targets in the United States with torpedoes with nuclear warheads was studied. On September 9, 1952, the USSR Council of Ministers adopted the Resolution "On the design and construction of object 627" with the T-15 torpedo for strikes against coastal targets. The development of nuclear charges was carried out by the USSR Ministry of Medium Machine Building with the involvement of the Research Institute-400 of the USSR Ministry of Shipbuilding Industry, but without coordination with the USSR Navy. The pre-draft design of the first submarine in the USSR, Project 627, was completed by March 1953. By May 1954, the draft and technical designs of the submarine Project 627 were completed. In July 1954, the technical design of the torpedo was completed and specialists from the USSR Navy were involved in the work for the first time. The conclusion of the Navy specialists was negative. The shortcomings of the thermonuclear charges of that time were noted, low speed, noise of the torpedo and the problematic launch of such a large torpedo. Work on the T-15 torpedo was probably stopped in 1955-1957.

In 1961, the idea of the T-15 torpedo was revived at the suggestion of A.D. Sakharov - the torpedo was supposed to be used as a means of delivering especially powerful 100 or more megaton thermonuclear charges.

Author: [DIMMI](#)

Created: 23.02.2011 20:32:11

Comments: [5](#)

[READ THE FULL ARTICLE >](#)

## pr.1238 Orca

**DATA AS OF 2025 (in progress)**

Project 1238 "Kosatka"

★★★★



Air-cushion fire support boat / artillery boat. The task for designing the Project 1238 air-cushion artillery boat for use in shallow waters was issued to the USSR Navy by the Almaz Central Marine Design Bureau in 1975. The reason for this decision was the continuing tension on the border with China, which ran along the Amur River. The ship was supposed to be equipped with a PT-76 tank turret and a BM-14-17 MLRS launcher of 140 mm caliber. The technical design of the fire support boat was developed in the sector of the Almaz Central Marine Design Bureau Chief Designer L.V. Ozimov under the supervision of Deputy Chief Designer Yu.P. Semenov.

The AK-16 boat was laid down at Shipyard No. 831 (PO More) in Feodosia in 1981 and transferred to the Fleet in 1982.



Artillery boat AK-16 pr.1238 during testing, 1982 (Maritime Herald, processed)

Author: [DIMMI](#)

Created: 12.05.2024 20:02:59

Comments: [1](#)[READ THE FULL ARTICLE >](#)

## D-19 / R-39 / 3M-65 - SS-N-20 STURGEON

**DATA AS OF 2023 (standard replenishment)**

**D-19 Variant complex, R-39 / 3M-65 / RSM-52 - SS-N-20 STURGEON missile**

**D-19U complex, R-39U / 3M-65 U missile**

**D-19M complex, R-39M / 3M-65M / RSM-52M Grom missile**

★★★★

Intercontinental-range submarine-launched ballistic missile (SLBM). The decision of the Military-Industrial Complex under the Council of Ministers of the USSR to develop a solid-fuel intercontinental SLBM in response to the development of the Trident SLBM in the United States was made in June 1971. In accordance with the decision of the Military-Industrial Complex, the D-19 Typhoon complex was created by the Design Bureau of Mechanical Engineering (Miass, now the Academician V.P. Makeyev State Research Center, formerly SKB-385). The design of the complex was directly supervised by the General Designer of the Machine-Building Design Bureau V.P. Makeyev. The Chief Designer of the D-19 complex and the R-39 missile was A.P. Grebnev (winner of the USSR Lenin Prize), the Lead Designer was V.D. Kalabukhov (winner of the USSR State Prize). It was planned to create a missile with three warhead options: a single-block, with a MIRV with 3-5 medium-power blocks, and with a MIRV with 8-10 low-power blocks. The development of the preliminary design of the complex was completed in July 1972. The preliminary design considered several missile options with different dimensions and differences in layout. The design of the missile was carried out, among other things, using data from the factual model of the Trident SLBM developed at the Machine-Building Design Bureau (Miass) by employees of Department No. 27 ( *source - Designer* ).

During the development of the missile, the following cooperation between military-industrial complex enterprises was established:

- Makeyev State Research Center (SKB-385) - lead design bureau for the missile system and missile
- Yuzhnoye Scientific and Production Association - lead design bureau for the 1st stage engine
- Iskra Scientific and Production Association - 2nd and 3rd stage engines
- Chemical Engineering Design Bureau - warhead engine - Altai Federal Scientific and Production Center - fuel for 1st and 2nd stage engines
- Soyuz Scientific and Production Association - fuel for 3rd stage engine
- NPO Avtomatiki (Sverdlovsk) - missile control system
- All-Russian Research Institute of Instrument Making (VNIITF) - development of warheads with thermonuclear charges

Resolution of the USSR Council of Ministers No. 692-222 of September 16, 1973 assigned the development of the Variant R&D project - the D-19 complex with a missile 3M-65 / R-39 ( [source](#) ). The development of the Project 941 SSBN with 20 3M-65 solid-fuel missiles was also assigned. Earlier, on February 22, 1973, a Resolution was issued on the development of a technical proposal at the Yuzhnoye Design Bureau for the RT-23 complex with the 15Zh44 missile with the unification of the first stage engines of the 15Zh44 and 3M-65 missiles. In December 1974, the development of a preliminary design for a missile using an interstage section and with a missile weight (together with the ARSS) of 90 tons was completed. In June 1975, an addition to the preliminary design was adopted leaving only one type of warheads - 10 MIRV IN with a capacity of 100 kt each. This version also provided for a single-block third stage engine and a PAD instead of an annular launch engine. The length of the silo changed from 15 to 16.5 m, the mass of the missile increased to 95 tons. The USSR Council of Ministers Resolution of August 1975 fixed the final configuration of the missile and combat equipment - 10 low-power MIRVs with a range of 10,000 km. In December 1976 and February 1981, additional Resolutions were issued stipulating changes in the type of fuel in the second and third stages and a reduction in the range of the missile to 8,300 km, and the deadlines for creating the complex were shifted to the right.





Monument - model of the RSM-52/R-39/3M-65 missile at the checkpoint of the NPO Altai, Biysk, October 2012 ( <http://www.biwork.ru> ).

Author: [DIMMI](#)

Created: 06.06.2012 17:27:56

Comments: [62](#)

[READ THE FULL ARTICLE](#) →

## [pr.1144 / 11442 Orlan - KIROV](#)

DATA FOR 2025 (standard update)

pr.1144 "Orlan" - Balcom-I / KIROV

"Kirov"

**Project**

11442 "Frunze"

"Kalinin"

"Peter the Great"

**Project 11442M**

"Admiral Nakhimov"

★★★



Heavy nuclear-powered missile cruiser (TARKR). In 1964, the USSR began studying the possibility of building a large military surface anti-submarine ship with a nuclear power plant. The main task is to destroy the SSBNs of a potential enemy in the areas of their combat duty. As a result of the research, the Central Design Bureau of Industry developed a technical assignment for the development of a project for a large anti-submarine ship with a nuclear power plant with a displacement of 8,000 tons. The development of the Orlan project was entrusted to the Leningrad Northern Design Bureau. Chief Designer and Manager - B.I. Kupensky (until May 1982), since May 1982 - V.A. Perevalov. The main supervisor of the design and construction of the ship from the USSR Navy was Captain 1st Rank A.A. Savin. From the very beginning, the ship project was directly supervised by the Commander-in-Chief of the USSR Navy S.G. Gorshkov.

During the design process, it was proposed to equip the ship with echeloned air defense systems, and later with an anti-ship missile strike system designed for use against a potential enemy aircraft carrier group. Due to the increase in displacement and the universalization of the ship's possible purpose, it was decided to classify it as a "heavy autonomous missile cruiser". The technical design of the ship was completed in 1972. The keel of the lead ship was laid at the Baltic Shipyard in Leningrad on March 26, 1974. According to space intelligence in the United States, the cruiser was named Balcom-I (Baltic Combatant). The lead ship, the cruiser Kirov, is equipped with 100-mm artillery mounts due to the unavailability of the 130-mm mount.



Cruiser pr.11442M "Admiral Nakhimov" at the outfitting quay of PO "Sevmash", published on 18.11.2024  
(photo by Oleg Kuleshov, <https://t.me/navyphotos>)

Author: [DIMMI](#)

Created: 10.11.2012 07:57:09

Comments: [18](#)

[READ THE FULL ARTICLE >](#)

## D-30 / R-30 / 3M-30 Mace - SS-N-32 (2)

DATA AS OF 2025 (standard replenishment v2)

Complex D-30 / 3K-30 / B-30 "Bulava-M", missile R-30 / 3M-30 / RSM-56 "Bulava" / "Bulava-30" - SS-NX-32 / SS-N-32

★★★★★

Ballistic missile for submarines (SLBM) of intercontinental range. Developed by the Moscow Institute of Thermal Engineering (MIT), chief designer - [Yu.S.Solomonov](#) (since 09.20.2010 - A.P.Sukhadolsky). According to Western data, the preliminary design of the missile began in 1992. When creating the new SLBM, MIT used the developments of the [15Zh59 Kuryer](#) ICBM project (range 9,500 km, weight 16 tons) using a new type of mixed fuel for solid-propellant rocket motors. According to the initial plans, the SLBM mass was to be 26-28 tons. Later, for the same reasons that changed the design of the 2nd and 3rd stages of the [Bark](#) SLBM, the mass and dimensional characteristics of the missile were changed ( *source - Colonel General A. Sitnov "Bulava"* ...). The decision to change the project was caused by the cessation of fuel production in Ukraine (repurposing for the production of household chemicals).

In November 1997, after the third unsuccessful launch of the [Bark](#) SLBM, Russian government ministers Ya. Urinson and I. Sergeyev (former commander of the Strategic Missile Forces) raised the issue of transferring the design of the Navy's main SLBM to the Moscow Institute of Thermal Engineering in a letter to Prime Minister V. Chernomyrdin. In November and December 1997, two Interdepartmental Commissions, created by order of the Russian Minister of Defense, worked to study the failures of the [Bark](#) SLBM tests. The commission included representatives of the MIT, the Armaments Directorate of the Russian Ministry of Defense, and the Strategic Missile Forces. The second Interdepartmental Commission recommended continuing the missile tests with the adoption of two Project 941U SSBNs into service, but representatives of the Armaments Directorate and the Strategic Missile Forces proposed stopping the development of the SLBM. The main reasons were:

- development of a maximally unified inter-service small-sized missile for the Strategic Missile Forces ( [Topol-M](#) ) and the Navy "Bulava";
- distribution of peaks in funding for the rearmament of the Strategic Missile Forces and the Navy ( [Topol-M](#) and Bulava);
- cost savings;

In early 1998, the commission's findings were approved by the Military-Technical Council of the Russian Ministry of Defense. In January 1998, the issue was reviewed by a commission created by order of the President of Russia. In the fall of 1998, at the suggestion of the Navy Commander-in-Chief V. Kuroyedov, the Security Council of Russia officially closed the " [Bark](#) " topic and, after a competition was held under the auspices of "Roskosmos" (participants - MIT and the Makeyev State Research Center with the " [Bulava-45](#) " project," (chief designer Yu.A. Kaverin) the design of the SLBM "Bulava" began at MIT. At the same time, the redesign of the SSBN project 955 for the Bulava missile began. At the same time, control over the development of SLBMs was assigned to the 4th Central Research Institute of the Ministry of Defense of Russia (headed by V. Dvorkin), which had previously been engaged in controlling the creation of ICBMs, and the "naval" 28th Central Research Institute of the Ministry of Defense of Russia was removed from work on SLBMs.

Cooperation of enterprises that were developing the D-30 Bulava missile system:

- MIT - the lead company for the system and the 3M-30 Bulava missile
- Votkinsk Machine-Building Plant - serial production of missiles
- VNIITF - unified warheads for SLBM combat equipment
- MIT and NPO Iskra - development of solid propellant rocket motors for cruise stages
- FSUE FNPC Altai (Biysk) jointly with FSUE FTsDT Soyuz - development of fuel for all solid rocket motors
- NPO Avtomatiki im.akad.N.A.Semikhatov - control system
- GRTS im.Makeyev - ship combat launch complex (KBSK)
- KBSM - launcher
- KB Motor and TsKB Titan - arsenal and other ground equipment





Loading of a 3M-30 Bulava missile at the assembly and loading base of the Votkinsk Machine-Building Plant, published in April 2016 ( [source](#) ).

Author: [DIMMI](#)

Created: 18.06.2016 22:44:42

Comments: [3](#)

[READ THE FULL ARTICLE >](#)

### pr.667BDR Kalmar - DELTA-III

#### DATA FOR 2024 (standard update)

#### pr.667BDR "Kalmar" - DELTA-III

K-424	K-487	K-223
K-441	K-44	K-180
K-449	K-496	K-433
K-455	K-506	K-129
K-490	K-211	



Nuclear-powered ballistic missile submarine (SSBN). The SSBN project was developed by the Rubin Central Design Bureau for Marine Engineering (Leningrad) based on the prp.667BD SSBN, chief designer - [S.N. Kovalev](#) . Work on the project of the D-9R sea-based intercontinental ballistic missile system with multiple warheads and the prp.667BDR SSBN carrier was initiated by the USSR Navy Command in January 1973.

The construction of the series of boats was carried out in Severodvinsk at PO Sevmash. The lead boat K-424 (plant no. 355) was laid down on January 30, 1974, launched on February 11, 1976 and accepted by the Fleet on December 30, 1976.



SSBN K-496 "Borisoglebsk" project 667BDR (1990-2000s)

Author: [DIMMI](#)

Created: 22.03.2016 21:01:08

Comments: [2](#)[READ THE FULL ARTICLE >](#)pr.885 Ash - YASEN / GRANAY / GRANEY**DATA FOR 2024 (standard update)****pr.885 / pr.08850 "Ash" - YASEN / GRANAY / GRANEY**

K-560 "Severodvinsk"

**pr.885M / pr.08851 "Ash-M" - YASEN-II**

K-561 "Kazan"

K-573 "Novosibirsk"

K-571 "Krasnoyarsk"

K-562 "Arkhangelsk"

"Perm"

"Ulyanovsk"

"Voronezh"

"Vladivostok"

★★★★



Multipurpose nuclear-powered submarine with cruise missiles (SSGN). Developed at the Malakhit Scientific Research Institute of Nuclear Engineering, Chief Designer - V.N. Pyalov (1985-2016). R&D on the development of 4th generation SSNs began in 1977. Preliminary design of an attack submarine with classic torpedo-missile armament according to Project 885 began in 1980 along with the development of Project 957 SSNs. The new project (885) retained a certain continuity from the Project 971 SSNs in terms of noise reduction. In 1985, the construction of Project 885 boats was planned by the USSR Navy construction program for the next 10 years. It was planned to build a series of 30 SSNs. On October 30, 1986, contract No. 102/86-E/554-86 was signed between the USSR Ministry of Defense and SPMBM "Malakhit" for the implementation of experimental design work (EDW) "Project 885" (an additional agreement to the contract was signed on March 31, 2011). The technical design of the submarine was prepared in the late 1980s, but was later redesigned taking into account changes in the requirements of the Navy leadership and taking into account the start of testing the promising and unified anti-ship missile "Onyx" for different carriers (1987). In 1989, a decision was made to cease the development of specialized SSNs and modify Project 885 for the "Onyx" anti-ship missile and the "Granat" cruise missile with the installation of a vertical launcher on the submarine.





PLA K-329 "Severodvinsk" project 885, probably 2014 (photo - Vorkunkov Maxim, <http://www.sevmash.ru> ).

Author: [DIMMI](#)

Created: 16.03.2010 02:31:49

Comments: [121](#)

[READ THE FULL ARTICLE >](#)

## pr.955 Borei - BOREI / DOLGORUKIY

### DATA FOR 2024 (standard update)

#### pr.955 "Borei" - BOREI / BOREY / DOLGORUKIY

K-535 "Yuri Dolgoruky"

K-550 "Alexander Nevsky"

K-551 "Vladimir Monomakh"

#### pr.955A "Borey-A" / pr.955U

K-549 "Prince Vladimir"

K-552 "Prince Oleg"

K-553 "Generalissimo Suvorov"

K-554 "Emperor Alexander III"

K-555 "Prince Pozharsky"

"Dmitry Donskoy"

"Prince Potemkin"

★★★★

Nuclear-powered ballistic missile submarine (SSBN). Research and development work on the development of a 4th generation SSBN with the D-11 missile system began in 1978. Development of Project 955 Borei-1 with the D-31 SLBM system and Project 935 Borei-2 with the D-35 SLBM system began at the Rubin Central Design Bureau of Marine Engineering under the leadership of General Designer S.N. Kovalev (since 1990 - under the leadership of Chief Designer V.N. Zdornov) in accordance with the Resolution of the USSR Council of Ministers in November 1985. The Chief Designer of the Borei project since March 2011 is Sergei Ottovich Sukhanov ( [source](#) ). It was planned to develop technical proposals for the SSBN and missile systems during 1985-1986. The technical proposals for the D-35 system were not implemented.

The development of the Project 955 SSBN with the [D-19UTTH "Bark"](#) missile system (12 SLBMs) instead of the D-31 system was started by the Resolution of the USSR Council of Ministers dated October 31, 1989 ( [source](#) - *V.S. Zavyalov* ). During the development of the project, it was planned to build a series of 14 SSBNs by 2000. In June 1995, by decree of the President of Russia B.N. Yeltsin, the redesign of Project 955 for the [D-19UTTH "Bark"](#) SLBM system of the Makeyev State Rocket Center was started. Although, according to some information, the technical design of the Project 955 SSBN with the "Bark" system was completed in the early 1990s ( [source](#) - *Apalkov* ).

The first submarine of Project 955 with the Bark missile system, K-535 Sankt-Peterburg, was added to the lists of Navy ships on 19.08.1995 and renamed Yuri Dolgoruky on 01.05.1996. The SSBN was ceremoniously laid down in workshop No. 55 of PO Sevmash (Severodvinsk) on 02.11.1996 with factory number 201. As a result of the delay in testing the Bark missile system, as well as in connection with difficulties with contractor deliveries of materials and equipment, the construction of the SSBN was suspended in mid-1997. It is believed that preparation of the groundwork for the first serial submarine of the project, factory No. 202 Alexander Nevsky, was also started in 1996 (source - *Apalkov* ).

After the refusal to complete the Bark missile system, a decision was made to redesign the SSBN for a new missile system. Starting from September 1998 to mid-1999 (according to the 1998 plans), Project 955 was redesigned according to Project 09551 to use the hull stock of [the Project 971 submarines](#) and the new Bulava missile system. In the 1990s, the lead boat of Project 09551 was planned to be delivered to the fleet in 2001-2002.

In the summer of 2003, in workshop No. 55 of PO Sevmash, the unfinished hulls of the submarines were rearranged, which made room for the official laying of the first serial and the second SSBN of Project 955 Borei. The Navy leadership has announced plans to receive the first three boats of the project into the Fleet by 2010 ( [source](#) ).



SSBN K-553 "Generalissimo Suvorov" project 955A "Borey-A" leaving Severodvinsk for its temporary basing site in the Northern Fleet, January 2023 (video frame from the Russian Ministry of Defense)

Author: [DIMMI](#)

Created: 14.03.2010 05:45:43

Comments: [155](#)

[READ THE FULL ARTICLE >](#)

## RPK-1 Whirlwind - SUW-N-1 / FRAS-1

DATA FOR 2024 (standard update)

RPK-1 "Vikhr" complex - SUW-N-1

Rocket 82R - FRAS-1



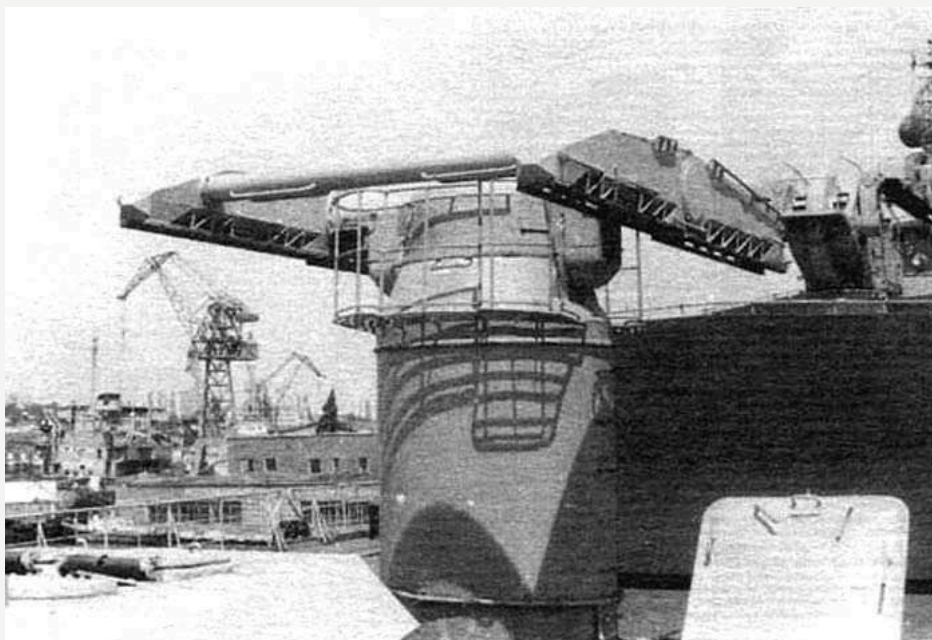
Anti-submarine missile system (RPK) with an unguided ballistic missile with a nuclear depth charge. The complex was developed by NII-1 GKOT (lead developer, named after Moscow Institute of Thermal Engineering) in accordance with the Resolutions of the Central Committee of the CPSU and the Council of Ministers of the USSR dated June 20, 1958 and No. 111-463 dated October 13, 1960 "On the development of new anti-submarine systems". NII-6, NII-9, NII-22 participated in the development. At the first stage, a competition was nominally held for anti-submarine complex designs between NII-1 GKOT, SKV-203 (Sverdlovsk) and SKV-709 of the State Committee for Shipbuilding. The developer of the complex was determined to be NII-1, the chief designer of the complex was N.P. Mazurov. By the end of the development, NII-1 was renamed the Moscow Institute of Heat Engineering (MIT).

The complex includes a ballistic unguided missile 82R on solid fuel (NII-1 GKOT), a twin-boom guided launcher MS-18 (MS-32) with a drum-type automatic loader for 8 (16) missiles, and a fire control system PUSTB-1123 "Sprut" (TsKB-209). Development of a nuclear charge was started by KB-11 (VNIIEF) in 1960.

Field tests of the complex were conducted in 1963 at the Peschanaya Balka test site (Feodosia, 2 PU).

Serial production of the Vikhr missiles began in 1964 at the SKB-203 plant in Sverdlovsk. That same year, the missile passed the first stage of state tests. Launches were made from both land-based launchers and the OS-332 experimental ship (former SKR-1, Project 159). About 40 launches were made. The second stage of state tests took place in 1967 on the lead ship of [Project 1123](#), the anti-submarine cruiser Moskva. The Vikhr shipborne anti-submarine complex with 82R unguided missiles was accepted into service by Government Resolution No. 440-168 of June 12, 1968. *Some sources mention the name of the Vysota complex in connection with the RPK-1 complex - not identified.*

Special thanks to abl22 for help in preparing the material ( <http://militaryrussia.ru/forum> )



PU MS-18 on the anti-submarine cruiser "Moskva" project 1123 (<http://flot.sevastopol.info>)



Author: [DIMMI](#)

Created: 31.05.2010 08:15:13

Comments: [0](#)[READ THE FULL ARTICLE >](#)

## pr.21300 Dolphin

DATA AS OF 2015 (standard replenishment)

pr.21300 "Dolphin" / pr.21300S

"Igor Belousov"

★★★★



Rescue vessel. Designed to rescue crews of submarines in distress lying on the ground or in the surface position, as well as to supply air, electricity and rescue equipment to submarines and surface ships. In addition, the vessel can search for and survey emergency objects in a given area, including as part of international marine rescue teams. The project was developed by the Almaz Central Marine Design Bureau (St. Petersburg), chief designer - Alexander Alexandrovich Forst ( [source](#) ). The ship is being built by Admiralty Shipyards (St. Petersburg) as part of the R&D program "Project 21300S". The ship was laid down on 24.12.2005. The state contract for construction was signed on 09.11.2011 - according to the contract, the ship should be handed over to the fleet on 25 November 2014. The ship was launched on 30.10.2012. As of spring 2013, the ship is being completed afloat. According to the situation at the beginning of 2011, the acceptance of the ship by the fleet was expected in 2015, but after the supplier of the deep-sea diving system was replaced by a foreign company, the deadline was shifted to 2014. Although by the end of 2012 it became clear that the ship would hardly be handed over to the fleet before 2015.

The project envisaged equipping the vessel with the GUV-450 deep-sea diving complex developed by the Lazurit Central Design Bureau. The complex includes 5 pressure chambers, a diving bell and a Project 18271 Bester rescue underwater vehicle. On January 31, 2011, Russian Minister A. Serdyukov issued a decision to terminate the development of the GVK-450 complex (the cost of which was estimated at no less than 1 billion rubles). The Ministry of Defense allocated 1.36 billion rubles for the purchase of a "foreign-produced serial GVK-450 that meets all the requirements of the Russian Navy" manufactured by the Scottish company DIVEX. Tetis Pro OJSC was appointed the supplier of the foreign-produced serial GVK. On May 29, 2012, a contract was signed between Admiralty Shipyards OJSC and Tetis Pro OJSC for the supply and installation supervision of the GVK-450. The decision was made without holding a competition and, moreover, in the absence of any analogues of the GVK-450 in the world. As of the end of April 2013, no action had been taken by the current leadership of the Ministry of Defense and the Russian military-industrial complex (Shoigu and Rogozin) to stop work on the foreign order. On April 24, 2013, contrary to the recommendations of the scientific and technical expert council of the Naval Academy and the Krylov Scientific Center to bring the development of the GVK-450 into compliance with the laws of the Russian Federation, Deputy Defense Minister Borisov approved the decision to continue work on the construction of the Igor Belousov by the Tetis Pro company. In addition, on December 27, 2012, the Government, with the approval of the Military-Industrial Complex (Rogozin), signed a Resolution on the allocation of funds for the purchase, under the state order for 2013-2015, of the Aquanaut Training Center - a complete land-based training analogue of the Project 21300 rescue vessel with an analogue of the serial deep-sea complex GVK-450 (which is not planned to be installed on the Project 21300 ship - see above). The customer of both the rescue vessel and the training complex is the Search and Rescue Service of the Russian Navy ( [source](#) ).

On January 20, 2015, the media announced plans for the Russian Navy to build three serial ships of Project 21300S in addition to the lead ship.



Rescue vessel Igor Belousov, project 21300, undergoing sea trials, spring 2015 (Admiralteets. No. 9 / 2015).

Author: [DIMMI](#)

Created: 15.05.2013 21:16:01

Comments: [14](#)[READ THE FULL ARTICLE >](#)

## D-8 / UR-100M

DATA AS OF 2024 (in progress)

D-8 Skat complex, UR-100M missile

★★

Submarine-launched ballistic missile (SLBM). Development was carried out by OKB-52 under the overall supervision of V.N. Chelomey. In February 1962, at a meeting of the USSR Defense Council in Pitsunda, V.N. Chelomey put forward a proposal to create a universal UR-100 ICBM ("universal missile") with a range of 11,000 km. It was proposed to solve three problems with one missile:

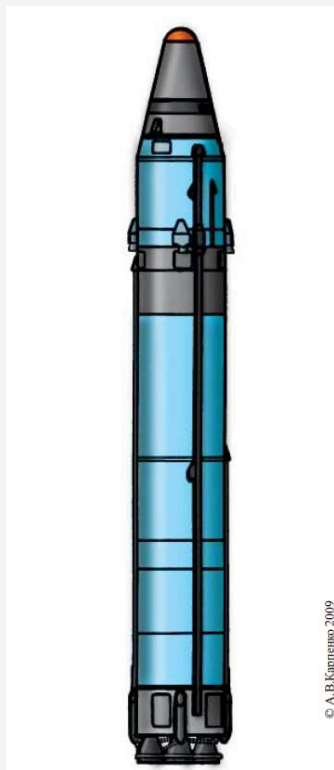
1. Mass deployment of the UR-100 universal land-based ICBM as a response to the deployment of the Minuteman ICBM in the United States;
2. Use of the UR-100 missile in the [Taran](#) strategic missile defense system as a long-range missile defense system;
3. Use of the UR-100M ("sea") ICBM for placement on submarines. The D-8 sea-based missile system with the UR-100 ballistic missile was developed by OKB-52 together with the chief designer of TsKB-18 (TsKB MT "Rubin") P.P. Pustynsev, who was responsible for the development of the submarine carrier of the "Skat" missile system. Taking into account the range of the UR-100 missile (11,000 km), a proposal was made to place the basing areas of future submarine carriers in the internal waters of the USSR, as well as to simplify the requirements for submarine carriers - it was proposed to place the missiles on non-nuclear submarines with a surface launch. The submarines could be made less complex and expensive with simplified tactical and technical characteristics in terms of diving depth and speed. It was assumed that the displacement of such a submarine carrier would be 5,000 tons (according to the original design), the boat would have a small crew. It was also assumed that the new submarine would have a higher combat stress coefficient than traditional submarine-launched ballistic missiles. Resolution of the Central Committee of the CPSU and the Council of Ministers of the USSR No. 389-140 on the creation of the UR-100 missile system with a simplified silo launch with an ampulized universal UR-100 missile was issued on March 30, 1963. On July 3, 1963, Decision No. 134 of the Military-Industrial Complex under the Council of Ministers of the USSR was adopted on the development of a pre-draft design for a naval version of the UR-100 ICBM. The D-8 complex design was a competitor to the D-9 complex design with an intercontinental SLBM from the Design Bureau of Mechanical Engineering (Miass). The development of the missile complex was carried out by the following cooperation of enterprises: - the D-8 complex and the UR-100M naval ICBM - OKB-52 - first stage cruise engines - OKB-154 under the direction of S.A. Kosberg and A.D. Konopatov - second stage cruise and steering engines - OKB-117 under the direction of S.P. Izotov (now the State Research and Production Enterprise "V.Ya. Klimov Plant") - the complex control system - NII-885 (NII AP) under the direction of

N.A. Pilyugin - command devices - NII-944 under the direction of V.I. Kuznetsov (now the NIIPM named after Academician V.I. Kuznetsov) - thermonuclear warheads - NII-1011 (now - VNIITF) - transport and launch container (TLC) - branch No. 2 of OKB-52

- submarine carriers - TsKB-18 (TsKB MT "Rubin"), chief designer P.P.Pustintsev.

The UR-100 missile was created as a light ampulized ICBM with engines on high-boiling long-storable fuel components. In early 1964, TsKB-18 was working on developing projects for the UR-100M SLBM carriers.

By the end of 1964, as a result of consideration of proposals for the D-8 and D-9 systems at the USSR Defense Council, preference was given to the D-9 missile system and all work on projects related to the UR-100 sea-based missile was curtailed.



Sea-based ballistic missile UR-100M ( source - Karpenko A. V. )

Author: [DIMMI](#)

Created: 19.01.2019 23:28:03

Comments: [16](#)

[READ THE FULL ARTICLE >](#)

[1](#) [2](#) [3](#) ... [15](#) [16](#) [17](#)

© 2009-2015 [militaryrussia.ru](http://militaryrussia.ru)  
Copying and use of materials  
is permitted only with a link  
to the corresponding article on the site



590

